

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**TENTATIVE MONITORING AND REPORTING PROGRAM NO. R9-2002-0013
FOR
RANCHO SANTA FE COMMUNITY SERVICES DISTRICT
SANTA FE VALLEY WATER RECLAMATION PLANT
SAN DIEGO COUNTY**

A. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this Monitoring and Reporting Program (M&RP) and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water or substance. Monitoring points shall not be changed without notification to and the approval of the Executive Officer.
2. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than +10 percent from true discharge rates throughout the range of expected discharge volumes.
3. Monitoring must be conducted according to United States Environmental Protection Agency (USEPA) test procedures approved under Title 40, Code of Federal Regulations (CFR), Part 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants Under the Clean Water Act" as amended, unless other test procedures have been specified in this M&RP.
4. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or a laboratory approved by the Executive Officer.
5. Monitoring results must be reported on discharge monitoring report forms approved by the Executive Officer.
6. If the Rancho Santa Fe Community Services District (discharger) monitors any pollutants more frequently than required by this M&RP, using test procedures approved under 40 CFR, Part 136, or as specified in this

M&RP, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharger's monitoring report. The increased frequency of monitoring shall also be reported.

7. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation and copies of all reports required by this M&RP, and records of all data used to complete the application for this M&RP. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.
8. Records of monitoring information shall include the following:
 - a. The date, exact place, and time of sampling or measurements,
 - b. The individual(s) who performed the sampling or measurements,
 - c. The date(s) analyses were performed,
 - d. The individual(s) who performed the analyses,
 - e. The analytical techniques or method used, and
 - f. The results of such analyses.
9. All monitoring instruments and devices that are used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
10. The discharger shall report all instances of noncompliance not reported under Provision F.6 of Order No. R9-2002-0013 at the time monitoring reports are submitted. The reports shall contain the information described in Provision F.6.
11. The monitoring reports shall be signed by an authorized person as required by Provision F.21.
12. A composite sample is defined as a combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period. For volatile pollutants, aliquot must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquot may be collected manually or automatically.

13. A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.
14. Sampling and analysis shall, at a minimum, be conducted in accordance with Article 6 of California Code of Regulations, Title 22, Division 4, Chapter 3 (Reclamation Criteria).
15. Any known direct cross-connection between recycled and potable water shall be reported to the Regional Board, State DHS, and County DEH within 24 hours.

B. EFFLUENT MONITORING

1. Samples of the effluent discharged from the Santa Fe Valley Water Reclamation Plant (SFVWRP) shall be collected at a point at or nearest to the effluent pump station, downstream of the disinfection process and prior to any dilution.
2. The discharger is responsible for monitoring and reporting in accordance with the following criteria:

CONSTITUENT	UNIT	TYPE OF SAMPLE	SAMPLING FREQUENCY ³	REPORTING FREQUENCY
Flowrate ¹	Gallons/Day	Continuous	Continuous	Monthly
Turbidity	NTU	Continuous	*	Monthly
Chlorine Contact Time (CT) ²	mg-min/L	Calculated	**	Monthly
Chlorine Residual ²	mg/L	Continuous	***	Monthly
Total Coliform	MPN/100ml	Grab	****	Monthly
Biochemical Oxygen Demand (BOD ₅ @ 20°C)	mg/L	Composite	Monthly	Monthly
Total Suspended Solids	mg/L	Composite	Monthly	Monthly
Volatile Suspended Solids	mg/L	Composite	Monthly	Monthly
Total Dissolved Solids	mg/L	Composite	Monthly	Monthly
pH	Unit	Grab	Monthly	Monthly
Nitrate (as NO ₃)	mg/L	Composite	Quarterly	Quarterly
Chloride	mg/L	Composite	Quarterly	Quarterly
Sulfate	mg/L	Composite	Quarterly	Quarterly

Boron	mg/L	Composite	Quarterly	Quarterly
Percent Sodium	%	Composite	Quarterly	Quarterly
Adjusted Sodium Adsorption Ratio ⁴	---	Composite	Quarterly	Quarterly
Fluoride	mg/L	Composite	Quarterly	Quarterly
Electroconductivity ⁵	dS/m	Composite	Quarterly	Quarterly
Iron	mg/L	Composite	Quarterly	Quarterly
Manganese	mg/L	Composite	Quarterly	Quarterly
Methylene Blue Active Substances	mg/L	Composite	Annually	Annually
Total Organic Carbon	mg/L	Composite	Annually	Annually
Aluminum	mg/L	Composite	Annually	Annually
Arsenic	mg/L	Composite	Annually	Annually
Antimony	mg/L	Composite	Annually	Annually
Barium	mg/L	Composite	Annually	Annually
Beryllium	mg/L	Composite	Annually	Annually
Cadmium	mg/L	Composite	Annually	Annually
Chromium	mg/L	Composite	Annually	Annually
Copper	mg/L	Composite	Annually	Annually
Cyanide	mg/L	Composite	Annually	Annually
Mercury	mg/L	Composite	Annually	Annually
Nickel	mg/L	Composite	Annually	Annually
Selenium	mg/L	Composite	Annually	Annually
Thallium	mg/L	Composite	Annually	Annually

Notes: MPN/100 ml = Most Probable Number per 100 milliliters

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

dS/m = deciseimens per meter

¹ Report both the daily average and daily maximum.

² Required if chlorine disinfection process is used. Disinfection using UV Irradiation will require additional monitoring requirements not currently specified in Order No. R9-2002-0013.

³ The discharger shall increase the sampling frequency from monthly to weekly, from quarterly to monthly, and from annually to quarterly for any noted constituent that exceeds the limit specified by Discharge Specification B.1, B.2, B.3, and B.4 of Order No. R9-2002-0013. The increased frequency of monitoring shall continue until the discharger

achieves compliance with the limitations for three consecutive periods. After compliance is achieved, the discharger shall resume sampling at the specified frequency. Monthly is defined as a calendar month. Weekly is defined as a calendar week (Sunday through Saturday). Quarterly is defined as three consecutive calendar months beginning at the first of the year. Annual is defined as a calendar year.

- 4 The adjusted sodium adsorption ratio (Adj. SAR) is calculated as follows:

$$\text{Adj. SAR} = \frac{Na}{\sqrt{(Ca_x + Mg)/2}}$$

where Na, Ca_x, and Mg are in milliequivalent per liter (meq/L)

Ca_x is a modified Ca value calculated using Table 3-2 contained in *Irrigation with Reclaimed Municipal Wastewater, A Guidance Manual*.

- 5 Samples for electroconductivity shall be monitored concurrently with ASAR.

* Effluent turbidity analyses shall be conducted continuously using a continuous monitoring and recording turbidimeter. Compliance with the daily average operating filter effluent turbidity limit of 2 NTU shall be determined by averaging the recorded turbidity levels at a minimum of four-hour intervals over a 24-hour period. Compliance with the turbidity standard of not exceeding 5 NTU more than 5 percent of the time over a 24-hour period shall be determined using the levels of recorded turbidity taken at intervals of no more than 1.2 hours over a 24-hour period. Should the continuous turbidity meter and/or recorder fail, grab sampling at a minimum frequency of one sample every 1.2 hours may be substituted until the turbidity meter and/or recorder is fixed. The discharger shall report monthly results of four-hour turbidity readings, average effluent turbidity (24-hours), 95 percentile effluent turbidity (24-hours), and the daily maximum turbidity (daily being defined as the 24-hour period from 12 am to 12 am). Continuous turbidity monitoring must also be provided prior to filtration to ensure adequate process control, and automatic actuate coagulant feed when the turbidity of the secondary treated effluent is greater than 10 NTU.

** Calculated CT (chlorine concentration multiplied by modal contact time) values shall be determined and recorded continuously. The daily minimum CT value shall be reported monthly. The discharger shall report monthly the date(s), value(s), time, and duration when the CT value falls below 450 mg-min/L, and/or the modal contact time falls below 90 minutes.

*** Chlorine concentrations shall be recorded by a continuous recording meter. Minimum daily chlorine residual shall be reported monthly.

**** Samples for total coliform bacteria shall be collected at least daily and at a time when wastewater characteristics are most demanding on the treatment facilities and disinfection procedures. Results of daily total coliform bacteria monitoring, running 7-day median determination, and maximum daily coliform reading in each of previous 12 months shall be reported monthly.

3. The discharger shall review the monitoring results for compliance with Order No. R9-2002-0013 and submit a statement of compliance as part of the Monitoring and Reporting Program No. R9-2002-0013. The statement of compliance shall identify and report all effluent limitation violations of

Discharge Specifications B.1, B.2, B.3, and B.4 of Order R9-2002-0013.

C. FILTRATION PROCESS MONITORING

If coagulation is not used as part of the treatment process, the turbidity of the filter influent and effluent shall be continuously measured. If effluent turbidity exceeds 2 NTU based on a 24-hour average, or if the influent turbidity exceeds 5 NTU for more than 15 minutes or 10 NTU at any time, then discharger shall submit a written report of the incident as part of the monthly monitoring report to the Regional Board. The report shall describe the measures taken to automatically activate chemical addition or to divert wastewater.

D. SEWAGE SOLIDS AND BIOSOLIDS

A record of the type, quantity, and manner of disposal and/or reuse of all solids removed in the course of sewage treatment shall be maintained at the SFVWRP and be made available to Regional Board staff upon request.

A biosolids certification, certifying that the use and disposal of biosolids complies with existing Federal and State laws and regulations, including permitting requirements and technical standards included in 40 CFR 503 shall be submitted annually.

E. STORAGE PONDS

The discharger shall record storage pond monthly inflow and outflow, the volume of water in storage at the end of each month, the monthly volume of ground, municipal, and recycled water used, and total water consumption.

F. RECYCLED WATER USERS SUMMARY REPORT

1. The discharger shall submit a quarterly recycled water users summary report containing the following information:
 - a. Total volume of recycled water supplied to all recycled water users for each month of the reporting period,
 - b. Total number of recycled water use sites,
 - c. Address of the recycled water use sites and
 - d. Basin Plan name and number of hydrologic subarea underlying the recycled water use site.
2. The discharger shall submit an annual recycled water users compliance report containing the following information:
 - a. Recycled water use site summary report.

- (1) Name of the reclaimed water reuse site
- (2) Owner of the reclaimed water use facility
- (3) Address of the reuse site
- (4) Name of the reclaimed water user supervisor
- (5) Phone number of the on-site water user supervisor
- (6) Mailing address of the recycled water use supervisor, if different from site address
- (7) Volume of reclaimed water delivered to the reuse site on a monthly basis

b. Recycled water user site inspections.

Number of reclaimed water reuse site inspections conducted by discharger/producer staff and identification of sites inspected for the year.

c. Recycled water user violations of the Recycled Water Agency's rules and regulations.

The discharger shall identify all recycled water users known to be in violation of the Recycled Water Agency's rules and regulations for recycled water users. The report shall include a description of the noncompliance and its cause, including the period of noncompliance, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

G. REPORT SCHEDULE

Monitoring reports shall be submitted to the Executive Officer in accordance with the following schedule:

<u>Reporting Frequency</u>	<u>Report Period</u>	<u>Report Due</u>
Monthly	January, February, March, April, May, June, July, August, September, October, November, December	By the 1 st day of the second month following the month of sampling
Quarterly	January - March April - June July - September October - December	May 1 st August 1 st , November 1 st February 1 st

Annually

January-December

February 1st

Monitoring reports shall be submitted to:

ATTN: POTW Compliance Unit
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123